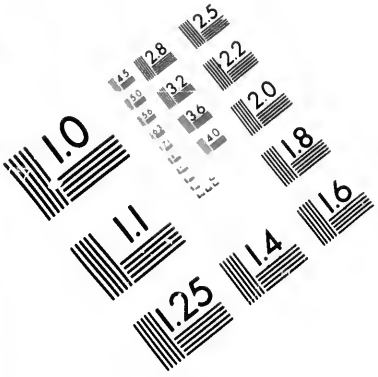

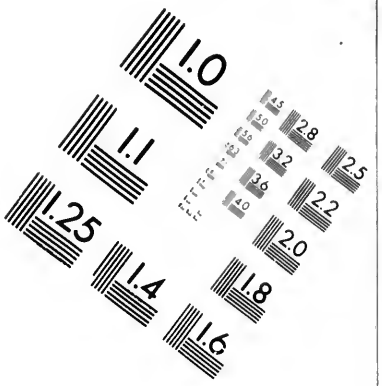

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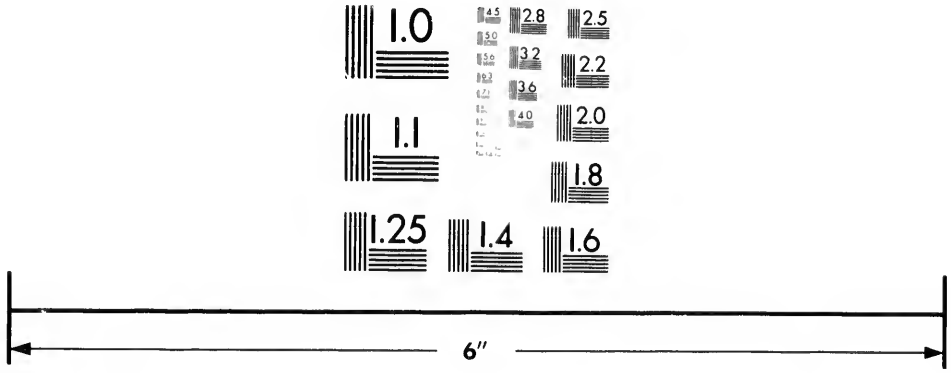

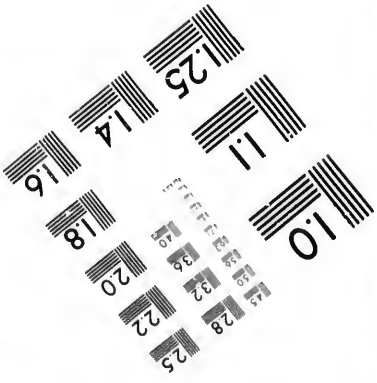

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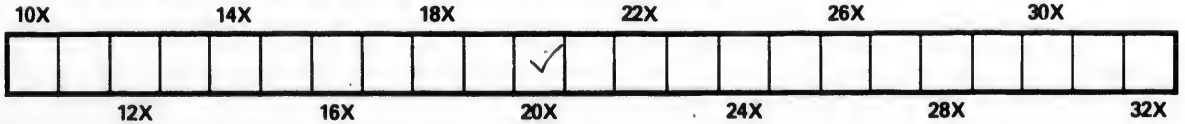

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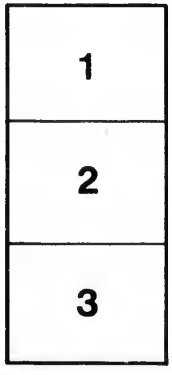

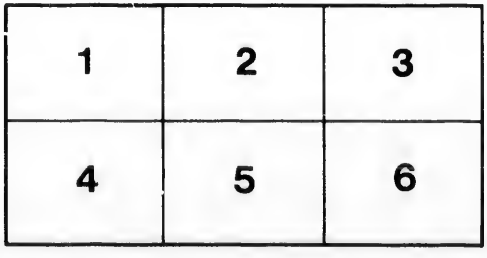

REPORTS

UPON THE

MINING CLAIMS

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Stanley Gold Mining Co.

OF

NOVA SCOTIA,

BY

ALEXANDER HEATHERINGTON, Esq.,

Mining Engineer, and author of "A Guide to the Gold Fields of Nova Scotia."

"Cosmopolites Statistical Chart of the Nova Scotia Gold Mines,"

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To the Directors of the

STANLEY GOLD MINING COMPANY OF NOVA SCOTIA:

GENTLEMEN,—In compliance with your request, I have visited and carefully inspected your property in the Sherbrooke Gold District, and beg to submit my opinion of the same in the annexed Report.

I have the honor to be,

Gentlemen,

Your very obdt. servt.,

ALEXR. HEATHERINGTON.

SHERBROOKE, NOVA SCOTIA,
September 12, 1867.

REPORT.

Before describing the special characteristics of the above property, it may not be amiss to submit some general details concerning the district of Sherbrooke, it having been my particular privilege, while engaged in preparing the statistical charts, now adopted and circulated by the Provincial Government, to obtain an amount of information, statistical and otherwise, accorded to few in the country, and a great part of which no one but myself has taken the pains to collect, and place himself in a position to furnish.

The first discovery of gold in Sherbrooke was made on the 23rd August, 1861, by Mr. Nelson Nickerson, a resident of St. Mary's, in that part of the district known as Goldenville.

The discoverer operated for some time in secret upon his own account; his practice being to break up quartz boulders in the forest, and hand-mortar the pieces, by which means he earned from three to twenty dollars a day. This went quietly on till the last week in October, when parties came upon his track in the forest, and a general hunt for gold ensued. It is averred that nearly two hundred persons dispersed through the woods on that day, and found in the aggregate about twenty ounces of gold before returning to their homes. On reporting this intelligence to Halifax a surveyor was directly sent down to lay off areas and grant leases, and active mining operations were commenced before the close of the year.

Here, as in other districts, the failure of the inexperienced and improvident few created a temporary predjudice against quartz mining; but when the extraordinary results obtained by

skilled labor, judicious selection of ground and systematic working began to be felt, a reaction took place in the public sentiment, and since the fall of 1862 Sherbrooke has made continuous and satisfactory progress.

The first official records begin with January, 1862, but the system did not work harmoniously until July, 1863, from which period only reliance may be placed upon the public data. Not that it is here implied that the returns are falsified previous to that date, but their compilation was entrusted to inexperienced and often incompetent persons, and the obligatory returns from mill-owners and lessees were not enforced. It is a well-ascertained fact that large quantities of gold were mined without being reported to the Commissioners, until the checks and penalties introduced by the Act of May, 1863, made it the interest of all concerned to give faithful returns of whatever was produced.

The gross yield of gold from Sherbrooke district, from January, 1862, to the 31st August, 1867, was as follows :—

		ox.	*dwts.*	*grs.*
1st January to 31st December,	1862 . . .	2,023	0	0
" "	1863 . . .	3,304	14	12
" "	1864 . . .	3,419	14	20
" "	1865 . . .	3,424	1	21
" "	1866 . . .	5,829	13	8
" 31st August,	1867 . . .	5,906	9	0
		23,907	13	13

The intrinsic value of Nova Scotian gold is £4 2s. 10d. sterling, per ounce, but assuming an average of £4 only, the value of this yield amounts to £95,630 14s. 2d. sterling, or $478,153 55 colonial currency.

It will be observed, too, that there has been a constant, and in the last two years extraordinary, increase of production, particularly when considered in connection with the fact that the product of 1866 was the result of only seventy-four men's daily labor, while the average number for 1864 was one hundred and four men.

For the present year the average daily number of miners has been one hundred and ten, (actually 109.9) of whom thirty-seven have been constantly engaged prospecting, and other

unproductive pursuits, yet the product for 1867, for eight months only, considerably exceeds that for the whole of the previous year, and if the same rate be sustained until December, Sherbrooke will contribute over eight thousand ounces to the general total.

Thirty-eight ounces of gold were obtained from alluvial soil in this district at different periods during the years 1863 and 1864, but if any has been discovered since, the discovery has not been reported.

The maximum yield is no safe indication of a generally rich distribution; but where occasional extraordinary yields do occur they prove at least the existence of paying deposits. The maximum for Sherbrooke for each successive year reads thus:—

	oz.	*dwts.*	*grs.*
1862	13	8	20
1863	146	8	19
1864	23	10	9
1865	5	0	20
1866	16	6	16
1867	13	2	4

so that this district has the distinction of having returned *the* maximum for the Province.

The parcel of quartz which gave this large yield was raised from the Hewitt claim on the famous "Blue Lode," and passed through the crusher on the 17th June, 1863. Hitherto Oldham was supposed to have given the largest special yield of any district, a quarter of a ton of quartz crushed there having produced at the rate of 116 oz., 2 dwts., 21 grains per British ton; but the writer, during his present visit to Sherbrooke, in looking over the books of the Deputy-Commissioner has had his attention directed to the original entry, corroborated by oath, of the crushing above referred to. A correction has therefore to be made in the returns of the chief officer, and in subsequent editions of the statistical chart.

The average yield of gold per ton of quartz has been continuously high in Sherbrooke, and as improved processes for extracting and saving gold are discovered is likely to become

still higher. The subjoined statement, however, could hardly be more satisfactory :—

	Sherbrooke.			Gold Districts of Nova Scotia, Comlectively.			Victoria. (Australia.)		
	oz.	*dwt.*	*grs.*	*oz.*	*dwt.*	*grs.*	*oz.*	*dwt.*	*grs.*
1862 . .	2	12	15	1	3	2	0	0	0
1863 . .	1	1	6	0	18	10	0	0	0
1864 . .	1	8	14	1	0	20	0	10	6-9
1865 . .	1	10	13	1	3	6	0	11	17-4
1866 . .	2	5	18	0	17	13	0	10	16-2
1867 . .	1	10	12	0	19	10	0	0	0

The septennial average for Victoria for the years 1859-1865 inclusive was only twelve pennyweights, six grains and four-tenths (12 dwt. 6-375 grs.) while the quinqennial mean. for Sherbrooke amounted to no less than one ounce, twelve pennyweights, thirteen grains and seven-tenths (1 oz. 12 dwts. 13-730 grs.) per ton, or very nearly three times as much as the most vaunted mines of Australia.

Among the most celebrated lodes as yet exploited in this district are the "Blue," "Cumminger," "Hayden" and "McCrae" lodes.

The course of the Blue is south 75° east, and its dip is 40° north. The name is derived from the color of the quartz. which is of a deep blue, and impregnated with fine gold. Besides the large yield of 146 oz. 8 dwts. 19 grs. already referred to as *the* maximum for the Province, the quartz from the lode has often given as much as *ten* ounces to the ton, and its average has seldom fallen below three.

The Hewitt is vertical and is composed of two veins separated by a thin seam of slate. The larger vein is the least productive, but the quartz from this lode has given larger and more profitable returns than any in the district—the average being four ounces to the ton.

The Hayden lode is composed of several small but very rich veins, and has sustained an average of 2½ oz. to the ton.

The Cumminger lode dips 45° north; has a band of slate to the north which has proved exceedingly rich, giving a continuous yield of two and a half to three ounces per ton to the depth of two hundred feet.

A new lode lately struck, known as the "Zwickel," and run-

ning almost parallel with the Cumminger, yielded 683 ozs. of gold from 155 tons of quartz raised during the month of August and several other promising lodes have been recently opened.

The average yield for each man in any way engaged about the mines is the truest criterion of the prosperity of a gold district, and in this respect Sherbrooke takes precedence of any in the world. The results for each year rate as follows :

ANNUAL EARNINGS PER MAN.

	SHERBROOKE.				VICTORIA (AUSTRALIA.)			
	£	S.	D.		£	S.	D.	
1862 . . .	181	7	10	Stg.	67	17	0	Stg.
1863 . . .	132	3	10	"	70	9	2	"
1864 . . .	130	15	10	"	74	1	9	"
1865 . . .	185	14	4	"	74	4	2	"
1866 . . .	323	9	10	"	80	8	3	"
1867 . . .	322	9	7	"	0	0	0	"
Mean. .	202	3	6	"	73	4	0	"

The contrast with Australia is important, for it should be remembered that that colony has had fifteen years' experience in gold mining, and possesses all the appliances which capital and intelligence can procure, while here in Sherbrooke nearly two-thirds of the miners are self-taught, and many of the overseers have neither experience nor scientific knowledge to aid and direct them in their work ; yet, as it has been shown, both in its average per ton and per man, the district nearly trebles that of Victoria.

Having exhibited the particular advantage of Sherbrooke over other districts in the Province, and also over Victoria in Australia, I would briefly record my views respecting the property comprised within the areas distinguished by a red border in the accompanying plan and numbered respectively as under :

Bk. II.—899, 900, 896, 897, 898, 893, 894, 895, 866, 867, 868, 869, 837, 838, 839, 775, 776, 777, 778, 569, 570.

Bk. III.—541, 542, 543, 880, 881.

Bk. V.—697, 698, 699, 695, 696, 693, 691, 663, 664, 665, 661, 662, 634, 635, 636, 637, 638, 603, 604, 605, 600, 607.

Their situation, extent, and surface indications give promise of their forming the nucleus of immense wealth.

From all appearances these areas have been most judiciously

chosen, and the plan of operation you have adopted must result in success to any parties who prudently develope any of your numerous lodes.

It will be at once seen, either by personal inspection, or by referring to the maps of your property and of the district. that areas 569 and 570, Block II., and 541, 542 and 543 in Block III., lie in direct range of continuance with the areas upon which are the main developments of several excellent Companies, and are traversed by the same lodes. Farther south, in Block II., you have two "tracts" comprising areas 775, 776, 777 and 778; also, areas 893, 894, 895, 896, 897, 898, 899, 900, 866, 867, 868, 869, 836, 837, 838 and 839, traversing which tracts, east and west, are the rich paying lodes that have been so successfully worked to the eastward by the "Palmerston," "Boulder" and "New Dominion" Companies.

In Block V. you have a large tract comprising areas, 603 to 609, 633 to 638, 663 to 665, and 691 to 699, which, although at present but little "prospected," are advantageously chosen as being certain to be traversed by the rich lodes which are being successfully worked and developed immediately to the westward.

The ground has a good slope and is capable of thorough drainage, and there are no obstacles to the formation of good roads and tramways.

The extent of surface is an advantage that can hardly be over estimated. Several Companies have been cramped in their operations simply through having made the mistake of not securing a sufficiently large area, and after developing a lode to, perhaps, its most productive part, have had the mortification of finding their works brought to a stand-still because it passed the limits of their property. Here nothing of the kind need be feared, and the great length of this tract from east to west gives every security, from its direction alone, for the economical and advantageous working of every uncovered lode, and of its ranking eventually among the most valuable claims in the Province.

ALEXR. HEATHERINGTON.

SHERBROOKE, NOVA SCOTIA,
September 10, 1867.

To the Directors of the

STANLEY GOLD MINING COMPANY OF NOVA SCOTIA :

GENTLEMEN,

In compliance with your instructions I have completed a geological examination of your location in the Sherbrooke gold mining district. My remarks on this property may perhaps be better understood if I first give a brief geological description of the district generally.

The centre of the present mining operations lies about a mile west of the St. Mary's River, at the village of Sherbrooke. The rocks of this region consist of dark greenish grey slatey quartzite, (locally known as "whin") interstratified with comparatively thin beds of darkly colored glossy clay slate. (The gold-bearing quartz veins, or "leads," are found accompanying the slate bands, which together with the quartz generally form belts of a convenient breadth for sinking shafts and driving tunnels between the walls of whin-rock. The beds generally lie on one side of the slate, or between it and the whin, but it is not uncommon to find a vein on each side, and occasionally the slate is cut by several small veins. The leads thus run with the stratification, which, in this district, has a general course from east to west. From the St. Mary's River, opposite Sherbrooke, a road runs a little south of west through the mining district. The leads to the south of this road strike almost due east and west, (astronomically) and have a nearly vertical attitude, while on the north side they run a little south of west, (or north of east) and dip northward at angles which are high near the road, but diminish gradually to 40° in receding from it. The road must, therefore, run nearly upon an

inclined axis. The quartz veins are very numerous, and so far as I could ascertain, all of them which have been tested contain more or less gold. Few of them exceed a foot in thickness, and the richest are generally under this breadth.

Your property comprising lots

893 to 900 ; 866 to 869 ; 837 to 839 ; 775 to 778—Block II.

541 to 543 ; 880, 881—Block III.

603 to 607 ; 634 to 638 ; 663 to 665 ; 691 to 699—Block V.

making in all 48 mining areas, lies to the north and south of the road in the immediate vicinity of some of the best developed locations of the district. The selection of areas which you have made appears to me to have been very judicious. From the fact that some leads have been already discovered upon them, and the strong probability, owing to their position, that many more will be found by exploring, this property may be safely pronounced a valuable one for gold mining operations.

I need not refer to the benefits which the Sherbrooke mining district derives from its close proximity to the St. Mary's River, which is navigated to this point by sea-going vessels ; nor of the advantages which your own location possesses in its comparatively large extent, as you are already aware of the importance of these considerations.

It may be perceived from the statistics published by the authority of the Government, that the quantity of gold produced in the Sherbrooke district has increased steadily, and very rapidly from 1862 (the time of its discovery) to 1866, in which year it amonnted to 5,829 ounces, worth $20 an ounce. The yield is still improving at an increased ratio. During the eight months from 1st January to 31st August of this year, it amounted to upwards of a hundred ounces more than that of the whole preceding year, being at the rate of about a quarter of a million dollars for the twelve months.

The profits of gold mining in any district are best ascertained by finding the average renumeration for every miner employed. This year the number of men employed in the Sherbrooke district has averaged one hundred. Their earnings, so far, are therefore at the rate of more than two thousand dollars per man for the year, or about $7,50 per day. In this calculation are included thirty-seven men who have been

employed all the time in operations not producing immediate results ; but as there is always more or less labor of this kind to be performed, it is only fair that the time of the men engaged in it, should be counted with that of the others.

Four stamp mills are at present in operation in the district, but they do their work so imperfectly that it may be safely said that only half the gold is saved in the majority of cases. The practice of using soft tallow candles or fish oil in the mines, thereby greasing the quartz, no doubt contributes to the great loss which is known to be going on. It is evident, therefore, that with larger mills and more efficient processes, still greater results will be attained. As an illustration of what may be done, I may mention that an improved mill which has just been started at Wine Harbor, produces two ounces, and upwards, from quartz which gave only about nine pennyweights by the system in common use in Nova Scotia.

The village of Goldenville (at the mines of the Sherbrooke district) is now a scene of great activity, and mining property is advancing rapidly in value.

I am,
Gentlemen,
Your obdt. servt.,
ROBERT BELL.